DOCUMENT RESUME

ED 103 789 CG 009 664

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TITLE Judge or Jury: The Problem of Assessing Learning Environments.
PUB DATE [72]
NOTE 15p.; Not available in hardcopy due to marginal legibility of original document

EDRS PRICE MF-$0.76 HC Not Available from EDRS..PLUS POSTACE
DESCRIPTORS *Classroom Environment; *Educational Assessment; Elementary Education; Environmental Research; *Evaluation; *Evaluation Methods; Learning Difficulties; Motivation; *Program Evaluation
IDENTIFIERS *Student Opinion Poll

ABSTRACT

Elementary school principals and guidance personnel are being called upon more frequently to evaluate the efficacy of educational goals and the means for attaining these goals. This article presents alternative methods to standardized testing for garnering significant information about the school environment. Three broad categories presented are school-wide, classroom and individual. To assess school environments the authors recommend using the Student Opinion Poll, a 49-item questionnaire. A number of other tools are also discussed. Two approaches mentioned to assess the classroom environment are a questionnaire approach and an interaction analysis approach. The third level of the assessment process, focusing on specific individual pupil behavior, necessitates the identification of specific assessment devices. This process should provide a better understanding of the nature of the students' and/or teacher's problem. The motivation behind student behavior must be more clearly understood, and the assessment tools presented in this report can give some direction to this search. (Author/BW)

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JUDGE OR JURY: THE PROBLEM OF ASSESSING LEARNING ENVIRONMENTS

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Elementary school principals and guidance personnel are more and more often being called upon to play the role of judge and jury relative to providing a formalized approach to evaluating the efficacy of educational goals and/or the means for attaining these goals. It is apparent that school personnel need to have at their disposal various devices with which they can garner significant information about variables which impinge upon a child's adjustment to the school setting and the school's need to adapt to individual differences.

Too often our response to classroom assessment needs is limited to standardized achievement and ability tests. The purpose of this article is to present alternative methods of garnering significant information about the school environment.

Assessment procedures can be applied to the total school environment, to the classroom, or focused upon the individual child. Thus, we present three broad categories: school-wide, classroom, and individual. In each case whether the broad context is being viewed or performance of a child, the main source of information is the child and his/her perceptions of the learning environment.

The three categories previously noted suggests a sequence for assessing school difficulties. Depending on one's personal bias, it is possible that many negative attitudes and behaviors

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may stem from the over-all school environment or from the individual attributes of the child. It seems feasible to argue that by modifying many of the negative aspects of the total environment the number of remaining personal adjustment problems would be greatly reduced. Thus, a school-wide assessment program would be a reasonable approach. However, it is also possible to argue for initiating the assessment process with the individual since it is probable that more change can be facilitated through an individual than with the total school.* The assessment devices explored in this article combine these two concepts by surveying pupils individually via questionnaires or observations and to gather data about their perceptions about the school and/or classroom.

School Environments

An example of a method for assessing a total environment is the Student Opinion Poll as reported in Jackson's Life in the Classroom. The Student Opinion Poll consists of a forty-nine item questionnaire which provides the pupil with an opportunity to indicate his opinion on many aspects of his school life. Included are how the student feels about parent influence upon the school, teacher ability, principal involvement, curriculum, peer relationships, student competition, school spirit, grades, homework and many others.

* An interesting treatise on which is easier to change was presented recently by Etzioni, A. "Human Beings Are Not Easy to Change After All," Saturday Review, June 3, 1972. pp. 45-47.

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The following items illustrate the type of questions:

Item 1. This school listens to parent's opinion:
a. too much
b. just enough
c. too little

Item 2. The amount of "school spirit" at this school is:
a. more than enough
b. about right
c. not enough

Item 3. When students need special attention, teachers in this school are:
a. always ready to help
b. generally ready to help
c. ready to help if given special notice
d. ready to help only in extreme cases

Item 4. In general, my feelings toward school are:
a. very favorable--I like it as it is
b. somewhat favorable--I would like a few changes
c. somewhat unfavorable--I would like many changes
d. very unfavorable--I frequently feel that school is pretty much of a waste of time

Another example of analyzing the school environment for the purpose of developing a more responsive atmosphere is the Elementary School Environment Survey, reported in the National Elementary Principal, April, 1970, by Sinclair.

Sinclair identified five major variables: practicality, community, awareness, propriety, and scholarship. Using these variables as his framework, he developed a forty item questionnaire in which students indicate a true response when the item reflects what usually occurs and a false response when it usually does not occur. A two to one ratio agreeing that an item does occur suggests that the item does reflect a characteristic of the student's school environment.

Some samples are:

Item 6. Students know they should check with the teacher before they do something that might break a school rule.

Item 12. Students that the principal and teachers know will have it easier in this school.

Item 21. This school seems to be an unfriendly place.

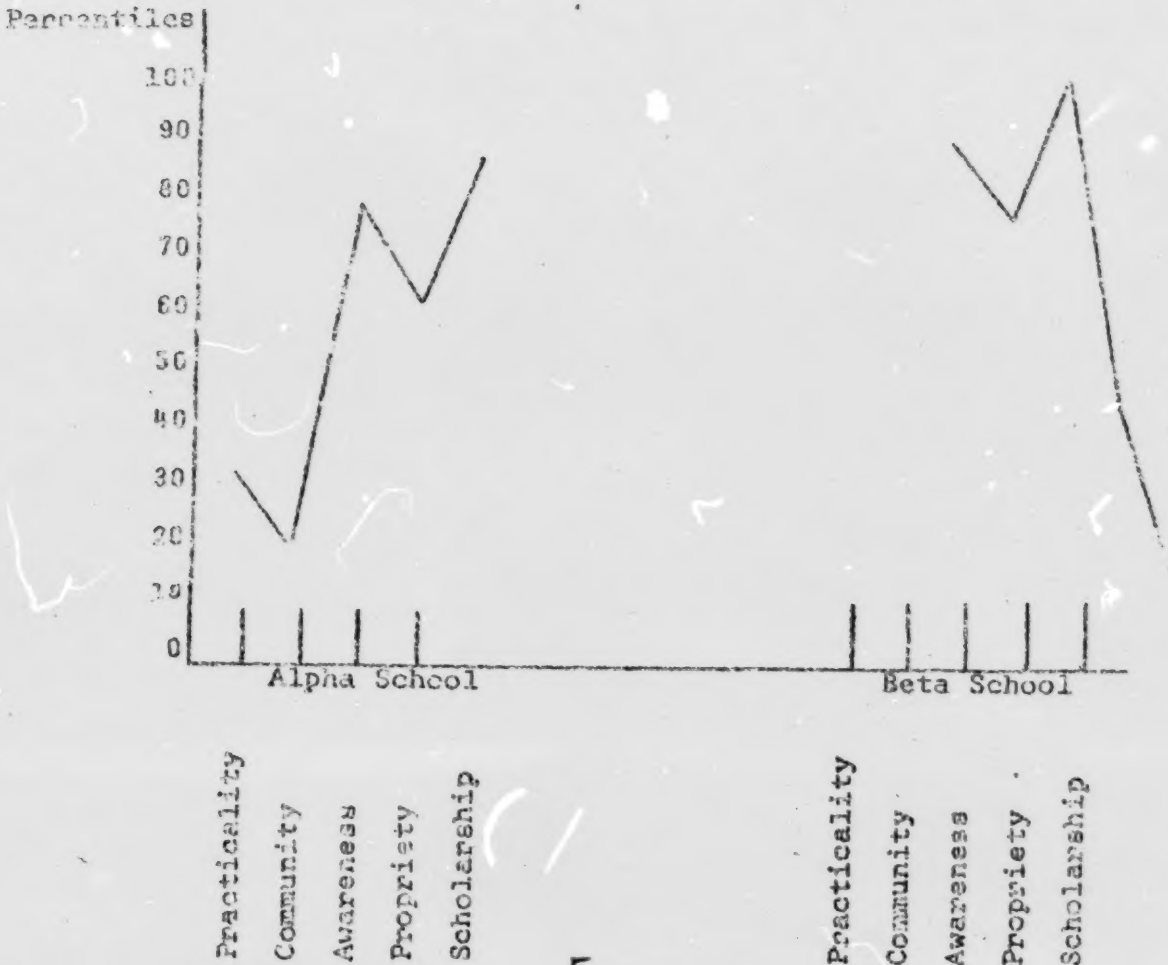
Item 27. In this school it is important to be just like everyone else.

Item 34. Most of the teachers are very hard workers and they think the students should study hard too.

Box A contains a comparison of two schools on the Environment Survey.

Box A

COMPARISON OF TWO SCHOOLS ON THE ELEMENTARY SCHOOL ENVIRONMENT SURVEY



The graphical summaries of Beta School would suggest that there exist a high emphasis on order (practicality), a greater feeling of camaraderie, friendliness (community), and involvement in experiences which develop a greater awareness of what is happening in the total society as well as self awareness (awareness). Alpha School would have fewer characteristics which would support to any degree the areas of practicality or community. However, Alpha School would place more emphasis on proper behavior and conformity (propriety) and academic performance (scholarship) than Beta School.

A most recent and comprehensive effort for providing means of assessing students' attitudes about their school has been developed by Instructional Objectives Exchange at UCLA, a handy paperback titled: Attitude Toward School, Grades K-12 provides some very interesting and varied methods for acquiring information about pupils' feelings towards many aspects of their school day.

It is possible by using any of these environmental assessment devices to ascertain the students' viewpoint of what they see in their day to day experiences in school. This is the type of feedback data that a principal or counselor along with a representative group of faculty and students could use as input information in developing a school environment that is more tuned in with its student body as to "what is" and "what ought" to be developed.

Classroom Environments

When one desires information about the classroom environment, it is possible to gain information through two approaches. First, a questionnaire approach similar to what has already been indicated as one approach that can be used in the classroom. In addition, however, because it is possible to observe directly what verbal interaction is taking place, an interaction analysis approach can be used. That is, interaction analysis devices can be utilized to collect data as to what is happening when it is occurring rather than relying on the reflective thoughts of the students ex post facto.

The questionnaire approach enables the teacher and/or counselor to gather data about a variety of dimensions which influence pupil responses. Another advantage to the use of questionnaires is that it enables students to express opinions which they may not feel comfortable in expressing publicly.

A conceptual framework for helping school personnel develop questions which can be answered through classroom solicitation is provided in Problem Solving to Improve Classroom Learning by Schmuck et al. A companion volume, Diagnosing Classroom Learning Environments by Fox et al., provides a variety of devices which can be used to acquire information about the learning climate, social relations, pupil norms, outside influences, parental influences, and pupil self concept. This publication also provides helpful hints on interpreting the information generated by the assessment devices.

The second approach to viewing the world of living in the classroom is through interaction analysis. In other words, deciding in advance what it is one wishes to look at and then going into the classroom to get a reading on these predetermined variables. Obviously this approach involves more than the classroom teacher. A second person, counselor, principal, subject area consultant, teacher aide can act as an objective observer and record the verbal and behavioral interaction as it transpires and can serve as an extra set of eyes to the classroom teacher.

Basically there are two constructs which may be followed in recording verbal interaction in a classroom. First, is the "sign" construct and the second is the "category" construct. The "sign" system consists of a fixed number of descriptive items which are not mutually exclusive. That is, each and every live observation may not be included on the list of items to be observed nor may each item be present during the observation period. Operationally, the observer has a predetermined list of items which after a specified block of time (usually two to ten minutes), he will check the items that occurred during that period. After marking the appropriate items, the observer focuses on the group again and repeats the recording of items for each observation period. Overall time lapse may be 20-30 minutes.

The "category" construct is comprised of a fixed number of mutually exclusive categories to which each observation must be assigned. When an observer uses a category system, he observes, determines which category best represents what is occurring and records it immediately. This process is repeated throughout the observation period (30-40 minutes) and usually an observation is

recorded every 3 to 10 seconds. When the recording period is concluded, the observer has a sequential series of observations which occurred during a given period of time.

By far the most researched category system is the Flander's System. This system consists of 10 categories, 7 assigned to teacher talk, 2 assigned to student talk, and a single category reserved for silence and/or confusion. This system permits generating some hypothesis about the direct and indirect teacher styles. Numerous studies have been conducted utilizing Flanders' System which have attempted to correlate the directness or indirectness of a teacher's verbal interaction and to correlate the teacher's verbal interaction and numerous other variables, such as academic achievement, attitude toward learning in school, etc. It is probably one of the most widely used systems that has been developed and includes a rather sophisticated method of interpreting the data recorded by the system. A more detailed development of the system and its uses are reported in the booklet by Amidon and Flanders, The Role of the Teacher in the Classroom.

To illustrate the proliferation of category systems, Simon and Boyer have inventoried and reported 79 distinct systems. These observation systems focus on the affective, cognitive, psycho-motor, physical activity, sociological structure and physical environment. Again, systems tend to reflect the purpose of the research and can be adapted to specific individual situations. The advantage of using a well-tested Flanders type system is that there are normative data available against which comparisons can be made. For example, the 2/3 ratio which suggests that 2/3's

of the time there is someone talking in the classroom and 2/3's of the time it is the teacher. These norms are based on literally thousands of hours of observation of teachers in a variety of classroom settings. Also, interestingly much of research being reported suggests that the indirect teacher is more effective in developing higher achievement and improved attitude towards school.

Individual Behavior

The third level of the assessment process is focusing in on specific individual pupil behavior. After sufficient readings have been made about the larger environment it seems inevitable that there is a need to examine behaviors of certain children. Again, the reason for the progression from total school environment to classroom to the individual is to suggest that many of the problems observable in individuals can be reduced by attending to certain overall environmental changes. Yet, it must be recognized that certain problems are more persistent and less amenable to change by environmental manipulations. It is then necessary to identify specific assessment devices which will enable us to better understand the nature of the student's and/or teacher's problem and attempt to intervene with appropriate actions.

The most common approach and usually the beginning point is collecting base rate or base line data. This becomes a reference point from which some judgment can be made as to the seriousness of the problem and to serve as a basis for comparing

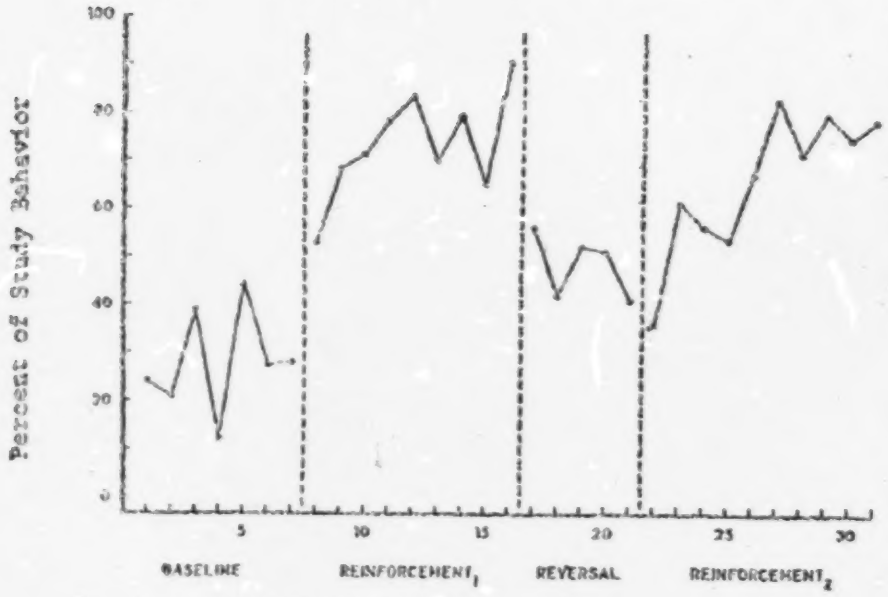
progress over a period of time. This process is sometimes called a time-series study in that the child's behavior is not compared to any norm but to different samples of behavior observed during specific periods of time.

Operationally, base rate data collecting is initiated by the teacher describing the behavior she wishes modified. For example, a teacher may be very concerned over the disruptive behavior of a boy during reading class. The observer sets up a specific time block in which he will record the number of incidents of disruptive behavior, e.g. grunts, groans, bangings, etc.

The base rate data collecting can be varied and modified greatly to fit individual situations. The base rate data can consist of academic response rates, error rates, accuracy rates, disruptive behavior rates, study behavior rates, or various aspects of the teacher's behavior.

Box B contains an illustration of an actual case.

TIME-SERIES OBSERVATIONS OF THE STUDY BEHAVIOR OF AN ELEMENTARY SCHOOL BOY



The vertical axis is the percent of time spent studying during the observation period. The horizontal axis is the number of days during which observations were made. The baseline observations were made while typical conditions in the classroom existed. The reinforcement periods consisted of the teacher attending to the boy at times when he was engaged in study. The reversal period was the period of time when the teacher returned to the conditions prevailing during the baseline period. As the data indicates, study behavior improved markedly during periods when the teacher changed her manner of responding to the child. (Hall, et al "Effects of Teacher Attention on Study Behavior" Journal of Applied Behavior Analysis vol. 1, Spring, 1968, pp. 1-12.)

Another rather widely used assessment device in attempting to understand specific children is the use of sociometric devices. These devices attempt to determine who are the most or least

popular youngsters in a class as viewed by their classmates. The important distinction to be kept in mind is to differentiate between the persons a child may prefer to play with from the persons the child may prefer to work with. Some research suggests that the youngsters selected by peers has a relationship to the situation in which they will relate. A child may prefer one youngster for working with him on a mural while at recess he will pick another to play football. Obviously, different talents are needed in each situation and a child is somewhat pragmatic in his selections.

It is possible to identify an infinite number and variety of individual assessment devices ranging from standardized personality tests to group achievement tests. Each of these is appropriate as the conditions determine their need. Often times an outside specialist is needed in special cases which go beyond the expertise of the classroom teacher and/or counselor.

In addition, these assessment devices can overlap one another and permit gathering data about both the student's environment as well as gathering some information about a specific student. Most of the questionnaires suggested in Diagnosing Classroom Learning Environment urge the use of a student number system, which will permit recognition of individual situations that may call for individual attention.

Thus far the emphasis has been on specific assessment tools, this is not to imply that good common sense and informal observations are not important. An alert, sensitive teacher can learn much from her students and can apply these ideas effectively

without much fanfare. We know intuition operates; it is part and parcel of any assessment process, but often we are dubious of its reliability. The point is that there are times when more specific data is needed in order to get a more accurate reading on what is transpiring in a particular situation. It is when such a situation arises that the assessment devices presented are most appropriate and will provide insights which might be missed by a more informal appraisal. However, there is still no substitute for an open, frank, and honest discussion with students and attempting to implement their practical suggestions.

Hopefully, the assessment tools provided will offer practical help to the teacher, counselor, and principal. For it is blatantly clear that our pupils are demanding to be recognized as persons and we are in need of developing means of better understanding the reasons behind the behavior we observe. The materials presented here can give some direction to this search.

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